



# TSHOOT: Troubleshooting and Maintaining Cisco IP Networks v2.0

Course ID#: 1575-944-ZZ-W

Hours: 35

## Course Content

### Course Description:

In this course, you will learn and practice techniques to monitor and troubleshoot routed and switched networks through extensive hands-on lab exercises. Troubleshooting methods, approaches, procedures, and tools are explored. A series of different organizations are introduced for each a set of troubleshooting scenarios that are presented. You will attempt to solve as many of the troubleshooting tickets as you can; the debrief includes review information that will help you further understand the specific issues raised in the scenarios.

### Prerequisites:

- Taking ROUTE v2.0 and SWITCH v2.0 is highly recommended

Knowledge of and experience with the implementation and verification of enterprise routing and switching technologies that includes:

- Layer 2 switching including VLANs, VLAN ACLs, and switch security
- Link aggregation protocols
- Various types of STP
- Inter-VLAN routing solutions
- First Hop Redundancy Protocols: HSRP, VRRP, and GLBP
- Branch office operations
- EIGRP and OSPF routing protocols
- Layer 3 path control
- Redistribution
- Internal and External BGP
- IPv4 and IPv6 networking

### Topics:

#### Lesson 1. Tools and Methodologies of Troubleshooting

- Describing Troubleshooting Methodologies
- Using Troubleshooting Procedures
- Following Recommended Practices During Routine Network Maintenance
- Using Basic IOS Troubleshooting Tools
- Using Specialized Troubleshooting Tools

#### Lesson 2. Troubleshooting at SECHNIK Networking Ltd.

- Debrief of the each of the three Troubleshooting at SECHNIK Networking Ltd. Labs
- Troubleshooting issues with trunks, NAT, interfaces, IPv6, network layer connectivity, errordisabled ports, DHCP, passive interfaces



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## Lesson 3. Troubleshooting at TINC Garbage Disposal Ltd.

- Debrief of the each of the four Troubleshooting at TINC Garbage Disposal Ltd. Labs
- Troubleshooting issues with BGP neighborship, port security, VLANs, native VLAN, OSPF adjacency, management access, HSRP, routing sources, VRRP, EtherChannel, GLBP, DHCP snooping

## Lesson 4. Troubleshooting at PILE Forensic Accounting Ltd.

- Debrief of the each of the five Troubleshooting at PILE Forensic Accounting Ltd. Labs
- Troubleshooting issues with EIGRP adjacency, BGP filtering and route selection, NTP, inter-VLAN routing, DNS, remote device management, EIGRP named configuration, EIGRP stub, default routes, management plane security.

## Lesson 5. Troubleshooting at Bank of POLONA Ltd.

- Debrief of the each of the four Troubleshooting at POLONA Ltd. Labs.
- Troubleshooting issues with redistribution, FHRP tracking, IP SLA, EIGRP summarization, basic RIPng, ACLs, GRE tunnels, OSPF summarization, AAA, OSPF for IPv6, OSPF stub areas.



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